

CLEAN VERSION OF PENDING CLAIMS

1 1. (Amended) A method for improving receive performance in a data network, the method
2 comprising:
3 receiving up to a plurality of indications denoting the start of frame transmission on a
4 corresponding plurality of communication links;
5 identifying that at least one of the received indications denote the start of a flow;
6 dedicating a receive buffer from a plurality of receive buffers to receive all frames
7 associated with the identified flow; and
8 assigning a pointer value to each frame based, at least in part, on the relative order in
9 which the indications of start of frame transmissions associated with each frame are received, the
10 corresponding pointer value associated with each respective frame being used to preserve a state
11 of frame transmission order.

1 2. The method of claim 1, wherein identifying the start of flow includes analyzing
2 information embedded within each of the received frames to determine source and destination
3 information associated with said frames.

1 3. The method of claim 1, further comprising determining whether the identified flow
2 requires preservation of transmission order.

1 4. The method of claim 3, further comprising promoting frames of the received flow in the
2 order received, unless it is determined flow requires preservation of frame order.

1 5. (Amended) The method of claim 4, further comprising creating a list of pointer values
2 corresponding to transmission order only if it is determined that the identified flow requires
3 preservation of transmission order.

1 6. The method of claim 1, further comprising promoting the received frames from the
2 dedicated buffer in the order received, without regard to frame transmission order, unless it is
3 determined that the identified flow requires preservation of transmission order.

1 7. The method of claim 6, further comprising determining whether the identified flow
2 requires preservation of transmission order by analyzing protocol identification information
3 embedded within the received frames.

1 8. The method of claim 1, wherein the buffer order does not correspond to the order of
2 frame transmission.

1 9.- 20. (Cancelled)

1 21. (Amended) A medium having embodied thereon a program for processing by a network
2 device, the program comprising:
3 a module to receive an indication to denote commencement of a flow of frame
4 transmissions;
5 a module to indicate at least one receive buffer to receive all frames associated with the
6 flow; and
7 a module to assign a pointer value to each frame based, at least in part, on the relative
8 order in which the indications of commencement of frame transmissions associated with each
9 frame are received, the corresponding pointer value associated with each respective frame being
10 used to preserve a state of frame transmission order.

1 22. The medium of claim 21, wherein the program further comprises a module to promote
2 frames of the received flow in the order received, unless it is determined flow requires
3 preservation of frame order.

1 23. (Amended) The medium of claim 21, wherein the program further comprises a module to
2 assign a pointer value to each frame of the identified flow corresponding to commencement of
3 transmission, creating a list of pointer values corresponding to transmission order only if it is
4 determined that the identified flow requires preservation of transmission order.

1 24. (Cancelled)

1 25. (Amended) Adapted for a data network including a plurality of communication links, a
2 method comprising:
3 receiving at least one indication denoting a start of frame transmission on the
4 corresponding plurality of communication links;
5 identifying a received indication denotes commencement of a flow;
6 dedicating a buffer from a plurality of buffers to receive all frames associated with the
7 identified flow;
8 determining whether the identified flow requires preservation of frame transmission
9 order; and
10 assigning a pointer value to each frame based, at least in part, on the relative order in
11 which the indications of start of frame transmissions associated with each frame are received, the
12 corresponding pointer value associated with each respective frame being used to preserve a state
13 of frame transmission order.

1 26. The method of claim 25, wherein identifying the start of flow includes analyzing
2 information embedded within each of the received frames to determine source and destination
3 information associated with said frames.

1 27. The method of claim 25 wherein the relying on the received indications comprises
2 promoting frames of the received flow in the order received, unless it is determined flow requires
3 preservation of frame transmission order.

82771P270C

Pat. App. No. 09/213,096

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1 28. (Amended) The method of claim 25 further comprising creating a list of pointer values
2 corresponding to transmission order only if it is determined that the identified flow requires
3 preservation of frame transmission order.

1 29. The method of claim 28, further comprising promoting the received frames from the
2 dedicated buffer in the order received, without regard to frame transmission order, unless it is
3 determined that the identified flow requires preservation of frame transmission order.

1 30. The method of claim 25, further comprising determining whether the identified flow
2 requires preservation of frame transmission order by analyzing protocol identification
3 information embedded within the received frames.

1 31. The method of claim 25, wherein the buffer order does not correspond to the order of
2 frame transmission.

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1 32. (Amended) A network device comprising:
2 means for receiving an indication to denote commencement of a flow of frame
3 transmissions;
4 means for indicating at least one receive buffer to receive all frames associated with the
5 flow; and
6 means for assigning a pointer value to each frame based, at least in part, on the relative
7 order in which the indications of commencement of frame transmissions associated with each
8 frame are received, the corresponding pointer value associated with each respective frame being
9 used to preserve a state of frame transmission order.

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1 33. The network device of claim 32, further comprising a means for promoting frames of the
2 received flow in the order received, unless it is determined flow requires preservation of frame
3 order.

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1 34. (Amended) The network device of claim 32, further creating a list of pointer values
2 corresponding to transmission order if it is determined that the identified flow requires
3 preservation of transmission order.
